**What is claimed is:**

1   1.   A   system   of   mining   association   itemsets,

2   comprising:

3   a database capable of storing at lease one weighted

4        record   and   at   least   one   transaction   record,

5        each   weighted   record   comprising   a   time   scale

6        and   a   weighted   value,   the   transaction   records

7        partitioned   according   to   the   time   scale,   and

8        each transaction   record   comprising   a   plurality

9        of items;

10  a   storage   device   storing   a   minimum   support   value;

11        and

12  an  association   analysis   unit,   configured   to   input

13        the   minimum   support   value,   the   transaction

14        record   and   the   weighted   record,   calculate   at

15        least   one   weighted   minimum   support   value   using

16        a   weighted   minimum   support   equation   whose

17        parameters   comprise   the   time   scale,   the

18        weighted   value   and   the   minimum   support   value,

19        and   generate   at   least   one   itemset   among   the

20        items,   calculate   a   weighted   frequency   for   each

21        itemset   using   a   weighted   frequency   equation

22        whose   parameters   comprise   the   weighted   value,

23        determine   whether   the   weighted   frequency   for

24        each   itemset   exceeds   the   weighted   minimum

25        support value.

1      2. The system as claimed in claim 1 wherein an
2 itemset record within the database comprises at least one
3 itemset.

1      3. The system as claimed in claim 2 wherein the
2 association analysis unit further adds the itemset with
3 weighted frequency exceeding the weighted minimum support
4 value.

1      4. The system as claimed in claim 1 wherein the
2 weighted minimum support values for subsequent partitions
3 are calculated by adding previously calculated weighted
4 minimum support values to the result of the weighted
5 minimum support equation for the requisite partition,
6 such that calculations for each successive partition are
7 incremental.

1      5. The system as claimed in claim 4 wherein the
2 weighted minimum support equation is the minimum support
3 value multiplied by the weighted value corresponding to
4 the current partition plus the result of the weighted
5 minimum support equation for the requisite partition.

1      6. The system as claimed in claim 4 wherein the
2 weighted frequency of the itemset for subsequent
3 partitions is calculated by adding previously calculated
4 weighted frequencies to the result of the weighted
5 frequency equation for the requisite partition, such that
6 calculations for each successive partition are
7 incremental.

1    7.    The system as claimed in claim 6 wherein the
2    weighted frequency equation comprises occurrence of the
3    itemset in the current partition multiplied by the
4    weighted value corresponding to the current partition
5    plus the result of the weighted frequency equation for
6    the requisite partition.

1    8.    A method of mining association itemsets, the
2    method comprising using a computer to perform the steps
3    of:
4            inputting a time scale, a weighted value, at least
5                one transaction record corresponding to the
6                time scale, and a minimum support value,
7                wherein the transaction records are partitioned
8                according to the time scale and the transaction
9                record comprises at least one item;
10    generating at least one itemset among the
11                transaction records;
12    calculating at least one weighted minimum support
13                value using a weighted minimum support equation
14                whose parameters comprise the time scale, the
15                weighted value and the minimum support value;
16    calculating a weighted frequency of each itemset
17                using a weighted frequency equation whose
18                parameters comprise the weighted value;
19    determining whether the weighted frequency of each
20                itemset exceeds the weighted minimum support
21                value.

22     9.   The method as claimed in Claim 8 further
23   comprising a step of storing the itemset with weighted
24   frequency exceeding the weighted minimum support value to
25   an itemset record.

1     10.   The method as claimed in Claim 9 further
2   comprising inputting the itemset generated for the prior
3   partition from the itemset record.

1     11.   The method as claimed in claim 8 wherein the
2   weighted minimum support values for subsequent partitions
3   are calculated by adding previously calculated weighted
4   minimum support values to the result of the weighted
5   minimum support equation for the requisite partition,
6   such that calculations for each successive partition are
7   incremental.

1     12.   The method as claimed in claim 11 wherein the
2   weighted minimum support equation is the minimum support
3   value multiplied by the weighted value corresponding to
4   the current partition plus the result of the weighted
5   minimum support equation for the requisite partition.

1     13.   The method as claimed in claim 11 wherein the
2   weighted frequency of the itemset for subsequent
3   partitions is calculated by adding previously calculated
4   weighted frequencies to the result of the weighted
5   frequency equation for the requisite partition, such that
6   calculations for each successive partition are
7   incremental.

1    14. The method as claimed in claim 13 wherein the

2   weighted frequency equation comprises occurrence of the

3   itemset in the current partition multiplied by the

4   weighted value corresponding to the current partition

5   plus the result of the weighted frequency equation for

6   the requisite partition.

1    15. A storage medium for storing a computer program

2   providing a method of mining association itemsets, the

3   method comprising using a computer to perform the steps

4   of:

5       inputting a time scale, a weighted value, at least

6           one transaction record corresponding to the

7           time scale and a minimum support value, wherein

8           the transaction records are partitioned

9           according to the time scale and the transaction

10         record comprises at least one item;

11      generating at least one itemset among the

12          transaction records;

13      calculating at least one weighted minimum support

14          value using a weighted minimum support equation

15          whose parameters comprise the time scale, the

16          weighted value and the minimum support value;

17      calculating a weighted frequency of each itemset

18          using a weighted frequency equation whose

19          parameters comprise the weighted value;

20      determining whether the weighted frequency of each

21          itemset exceeds the weighted minimum support

22          value.

23      16. The method as claimed in Claim 15 further
24 comprising a step of storing the itemset with weighted
25 frequency exceeding the weighted minimum support value to
26 an itemset record.

1      17. The method as claimed in Claim 16 further
2 comprising inputting the itemset generated for the prior
3 partition from the itemset record.

1      18. The method as claimed in claim 15 wherein the
2 weighted minimum support values for subsequent partitions
3 are calculated by adding previously calculated weighted
4 minimum support values to the result of the weighted
5 minimum support equation for the requisite partition,
6 such that calculations for each successive partition are
7 incremental.

1      19. The method as claimed in claim 18 wherein the
2 weighted minimum support equation is the minimum support
3 value multiplied by the weighted value corresponding to
4 the current partition plus the result of the weighted
5 minimum support equation for the requisite partition.

1      20. The method as claimed in claim 18 wherein the
2 weighted frequency of the itemset for subsequent
3 partitions is calculated by adding previously calculated
4 weighted frequencies to the result of the weighted
5 frequency equation for the requisite partition, such that
6 calculations for each successive partition are
7 incremental.

1    21.   The method as claimed in claim 20 wherein the

2    weighted frequency equation comprises occurrence of the

3    itemset in the current partition multiplied by the

4    weighted value corresponding to the current partition

5    plus the result of the weighted frequency equation for

6    the requisite partition.